

SUPPORT FOR THE AMENDMENT

This Amendment amends Claims 1 and 16. Support for the amendments is found in the specification and claims as originally filed. In particular, support for "consisting essentially of" is found in the specification at least at page 4, lines 8-19. No new matter would be introduced by entry of these amendments.

Upon entry of these amendments, Claims 1-2, 8, 10-11 and 15-16 will be pending in this application. Claim 1 is independent.

REQUEST FOR RECONSIDERATION

Applicants respectfully request entry of the foregoing and reexamination and reconsideration of the application, as amended, in light of the remarks that follow.

The present invention relates to an endotracheal tube that (i) is not composed of a plasticized-polyvinyl chloride that can generate a harmful dioxin when burned, (ii) is excellent in kink resistance, slidability and prevention of sticking and (iii) has excellent transparency. The endotracheal tube is obtained by subjecting a resin composition consisting essentially of a specific styrenic elastomer and a polyolefin to extrusion molding.

Claims 1, 8 and 15 are rejected under 35 U.S.C. § 102(e) over U.S. Patent No. 6,184,291 ("Ahmed"). In addition, Claims 2 and 10-11 are rejected under 35 U.S.C. § 103(a) over Ahmed in view of U.S. Patent No. 4,552,914 ("Sterling").

Ahmed discloses a thermoplastic elastomeric composition comprising (a) from about 50 to about 99 percent by weight of at least one block copolymer and (b) about 1 to about 50 percent by weight of at least one ethylene interpolymers. Ahmed at Abstract.

The Final Rejection dated April 14, 2004, asserts that

In regard to claim 1, Ahmed et al. teach ... medical tubing ... obtained by subjecting a resin composition comprising a hydrogenated styrene-isoprene-styrene block copolymer ... and a **polypropylene** that is represented by the name "**TAFMER P0480**" (col. 17, lines 13-16, col. 22, lines 43-54 and Example 18 in Table 4 at lines 1-24 of col. 23) to extrusion molding Final Rejection at section 11, lines 1-9 (emphasis added).

Ahmed's Example 18 composition contains 25% by weight of TAFMER P0480.

Ahmed at column 22, lines 49-53; Table 4.

However, Ahmed's TAFMER P0480 "polypropylene" contains only about 20 mole% of *propylene* monomer and about 80 mole% of *ethylene* monomer. See attached Declaration Under 37 C.F.R. 1.132. Thus, Ahmed's TAFMER P0480 "polypropylene" contains about 73 weight % of *ethylene* monomer ($= (100) \{ (80)(28) / [(80)(28) + (20)(42)] \}$, assuming a basis of 100 moles TAFMER P0480, 28 g/mole ethylene monomer, and 42 g/mole propylene monomer).

Thus, Ahmed's Example 18 composition contains about 18 weight% ($= (100)(0.25)(0.73)$) of ethylene monomer.

Ahmed fails to suggest the independent Claim 1 limitations of "an endotracheal tube comprising ... a resin composition *consisting essentially of* a hydrogenated styrene-isoprene-styrene block copolymer... and polypropylene *consisting essentially of* propylene monomer as a polyolefin..., wherein the weight ratio of the polypropylene to the hydrogenated styrene-isoprene-styrene block copolymer... is 20/80 to 40/60 ...".

The limitations "consisting essentially of" exclude from Claim 1's resin composition and polypropylene unspecified impurities in amounts that would materially affect the transparency of the endotracheal tube of the present invention. The specification at, e.g., page 6, line 19, indicates that "excellent transparency" is a characteristic of the endotracheal tube of the present invention. The limitations "consisting essentially of" does not exclude

from Claim 1's resin composition and polypropylene unspecified monomers in amounts that do not appreciably degrade the transparency of the endotracheal tube of the present invention.

Ethylene impurities in amounts of 15% by weight or more (such as the 18 weight % in Ahmed's Example 18) materially affect the transparency of the recited resin composition "wherein the weight ratio of the polypropylene to the hydrogenated styrene-isoprene-styrene block copolymer (polypropylene/hydrogenated styrene-isoprene-styrene block copolymer) is 20/80 to 40/60". The Declaration Under 37 C.F.R. § 1.132 filed October 12, 2004 (copy attached), indicates that polymer film containing styrenic elastomer and 20, 30 or 40 weight% of TAFMER P0480 is significantly less transparent (higher haze value) than polymer film containing the styrenic elastomer and 20, 30 or 40 weight% of polypropylene. The films containing styrenic elastomer and TAFMER P0480 exhibited poor transparency because these films contained between about 15 weight% and about 29 weight% of ethylene monomer. The polymer film of Comparative Experiment No. 3 with 20 weight% of TAFMER P0480 "polypropylene" containing about 73 weight% of ethylene monomer had about 15 weight% $(= (100)(0.20)(0.73))$ of ethylene monomer and had a haze value of 35.0. The polymer film of Comparative Experiment No. 1 with 40 weight% of TAFMER P0480 "polypropylene" containing about 73 weight% of ethylene monomer had about 29 weight% $(= (100)(0.40)(0.73))$ by weight of ethylene monomer and had a haze value of 62.4. In contrast, the polymer films of Experiment Nos. 1-3 with 40, 30 and 20 weight% of polypropylene had haze values of only 7.2, 4.2 and 2.0, respectively.

Because the Declaration Under 37 C.F.R. § 1.132 filed October 12, 2004, shows that Ahmed's TAFMER P0480 "polypropylene" containing about 73 weight% of ethylene monomer materially affects the transparency of the recited "resin composition" when present in the amounts defined by independent Claim 1, the limitations "consisting essentially of" exclude from Claim 1's polypropylene Ahmed's TAFMER P0480 "polypropylene".

Because Ahmed fails to suggest at least the "consisting essentially of" limitations of independent Claim 1, the rejection under 35 U.S.C. § 102(e) over Ahmed should be withdrawn.

Sterling fails to remedy the deficiencies of Ahmed. Sterling discloses a blend comprising **styrene-ethylene-butylene-styrene** block copolymer and polypropylene. Sterling at Abstract. However, Sterling fails to suggest the independent Claim 1 limitation of a "hydrogenated **styrene-isoprene-styrene** block copolymer". Furthermore, Sterling fails to suggest the independent Claim 1 limitation that "the weight ratio of the polypropylene to the hydrogenated styrene-isoprene-styrene block copolymer (polypropylene/hydrogenated styrene-isoprene-styrene block copolymer) is 20/80 to 40/60", which results in an endotracheal tube with excellent transparency. See the Declaration Under 37 C.F.R. § 1.132 filed October 12, 2004, discussed above.

Because the cited prior art fails to suggest all the limitations of independent Claim 1, the prior art rejections should be withdrawn.

Pursuant to M.P.E.P. 821.04, after independent product Claim 1 is allowed, Applicants respectfully request rejoinder, examination and allowance of method Claim 16, which includes all of the limitations of independent product Claim 1.

In view of the foregoing amendments and remarks, Applicants respectfully submit that the application is in condition for allowance. Applicants respectfully request favorable consideration and prompt allowance of the application.

Should the Examiner believe that anything further is necessary in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.
Norman F. Oblon



Corwin P. Umbach, Ph.D.
Registration No. 40,211

Attached:

Declaration Under 37 C.F.R. 1.132

Declaration Under 37 C.F.R. § 1.132 filed October 12, 2004, and date-stamped filing receipt.

Customer Number

22850

Tel: (703) 413-3000
Fax: (703) 413-2220
(OSMMN 08/03)